

CLAIMS

1-14. (canceled)

15. (previously presented) An integrated structure having a piezoelectronic device, the integrated structure comprising:
a substrate having an cavity;
a piezoelectric layer integral to the piezoelectronic device and supported on the substrate, such that the piezoelectric layer spans the cavity in the substrate to form a suspended membrane portion of the piezoelectric layer; and
one or more conducting elements integral to the piezoelectronic device and mounted on the suspended membrane portion of the piezoelectric layer.

16. (previously presented) The device of claim 15, wherein the piezoelectronic device comprises a thin film resonator.

17. (previously presented) The device of claim 15, wherein the piezoelectronic device comprises a T-Cell building block.

18. (previously presented) The device of claim 15, wherein:
the suspended membrane portion of the piezoelectric layer has an inner side facing towards the cavity in the substrate and an outer side facing away from the cavity in the substrate;
at least one conducting element is mounted on the inner side of the suspended membrane portion of the piezoelectric layer; and
at least one conducting element is mounted on the outer side of the suspended membrane portion of the piezoelectric layer.

19. (previously presented) The device of claim 15, further comprising one or more conducting leads running along the suspended membrane portion of the piezoelectric layer from one or more corresponding conducting elements towards an edge of the piezoelectric layer, wherein:
the integrated structure is mounted in an edge-on fashion within a recess of a package having one or more bonding leads mated to the one or more conducting leads of the piezoelectronic device.

1 20. (previously presented) The device of claim 19, wherein each bonding lead of the
2 package is mated to the corresponding conducting lead of the piezoelectronic device by a reflowed solder
3 bump.

1 21-25. (canceled)

1 26. (new) The device of claim 15, wherein the piezoelectric layer is in direct contact with the
2 substrate on opposing sides of the cavity.

1 27. (new) The device of claim 15, wherein all support for the piezoelectric layer is provided
2 directly by the substrate without any intervening structure.

1 28. (new) The device of claim 18, wherein the at least one conducting element mounted on
2 the inner side extends within the cavity beyond the surface of the inner side.

1 29. (new) The device of claim 18, wherein the at least one conducting element mounted on
2 the inner side is not in direct contact with the substrate.

1 30. (new) The device of claim 29, wherein:
2 the piezoelectric layer is in direct contact with the substrate on opposing sides of the cavity;
3 all support for the piezoelectric layer is provided directly by the substrate without any intervening
4 structure; and
5 the at least one conducting element mounted on the inner side extends within the cavity beyond
6 the surface of the inner side.